

## WHAT IS CLAIMED IS:

1. A compound of the formula



I

wherein:

A<sup>1</sup> is a member selected from the group consisting of alkylene, alkenylene, alkynylene, cycloalkylene, cycloalkenylene, arylene, heteroarylene, heterocycloalkylene, and heterocycloalkenylene, or, alternatively, A<sup>1</sup> represents a single or double bond linking L<sup>1</sup> and L<sup>2</sup>;

L<sup>1</sup> and L<sup>2</sup> are each independently a member selected from the group consisting of O-, -S-, -N(R<sup>1</sup>)-, -C(O)-, -C(O)N(R<sup>1</sup>)-, -O-alkylene-, -S-alkylene-, -N(R<sup>1</sup>)-alkylene, -C(O)-alkylene, -C(O)N(R<sup>1</sup>)-alkylene, -C(O)-O-alkylene, alkylene, alkenylene, alkynylene, cycloalkylene, cycloalkenylene, arylene, heteroarylene, heterocycloalkylene, and heterocycloalkenylene;

B<sup>1</sup> and B<sup>2</sup> are each independently a member selected from the group consisting of alkyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl, heterocycloalkyl, and heterocycloalkenyl;

alternatively, L<sup>1</sup> can be additionally linked to B<sup>1</sup> via a group X<sup>1</sup> to form a 5-9 member ring; and L<sup>2</sup> can be additionally linked to B<sup>2</sup> via a group X<sup>2</sup> to form a 5-9 member ring;

X<sup>1</sup> and X<sup>2</sup> are each independently a member selected from the group consisting of -O-, -S-, -N(R<sup>2</sup>)-, -C(O)-, -C(O)N(R<sup>2</sup>)-, -O-alkylene-, -S-alkylene-, -N(R<sup>2</sup>)-alkylene, -C(O)-alkylene, -C(O)N(R<sup>2</sup>)-alkylene, and -C(O)-O-alkylene; and

R<sup>1</sup> and R<sup>2</sup> are each independently a member selected from the group consisting of hydrogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, aryl(heteroalkyl), (heteroaryl)alkyl, and (heteroaryl)heteroalkyl.

2. The compound of claim 1, wherein

A<sup>1</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>8</sub>)alkylene, arylene, heteroarylene and a single bond;

L<sup>1</sup> and L<sup>2</sup> are each independently a member selected from the group consisting of -C(O)- and -C(O)N(R<sup>1</sup>)-;

6 R<sup>1</sup> is a member selected from the group consisting of (C<sub>5</sub>-C<sub>8</sub>)cycloalkyl,  
7 aryl, heteroaryl, aryl(C<sub>1</sub>-C<sub>4</sub>)alkyl, and (heteroaryl)(C<sub>1</sub>-C<sub>4</sub>)alkyl; and

8 B<sup>1</sup> and B<sup>2</sup> are each independently a member selected from the group  
9 consisting of aryl, heteroaryl, aryl(C<sub>1</sub>-C<sub>4</sub>)alkyl, (heteroaryl)(C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>8</sub>)alkyl,  
10 and (C<sub>5</sub>-C<sub>8</sub>)cycloalkyl.

1 **3.** The compound of claim 1, wherein

2 A<sup>1</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>8</sub>)alkylene,  
3 phenylene, divalent pyridine and a single bond;

4 L<sup>1</sup> and L<sup>2</sup> are each independently a member selected from the group  
5 consisting of -C(O)- and -C(O)N(R<sup>1</sup>)-;

6 R<sup>1</sup> is optionally substituted (C<sub>5</sub>-C<sub>8</sub>)cycloalkyl, optionally substituted  
7 phenyl, optionally substituted benzyl, and (C<sub>1</sub>-C<sub>8</sub>)alkyl; and

8 B<sup>1</sup> and B<sup>2</sup> are each independently a member selected from the group  
9 consisting of optionally substituted (C<sub>5</sub>-C<sub>8</sub>)cycloalkyl, optionally substituted phenyl, and  
10 optionally substituted benzyl.

1 **4.** The compound of claim 1, wherein

2 A<sup>1</sup> is a member selected from the group consisting of alkylene, arylene,  
3 heteroarylene and a single bond;

4 L<sup>1</sup> and L<sup>2</sup> are each -C(O)N(R<sup>1</sup>)-;

5 R<sup>1</sup> is a member selected from the group consisting of aryl, heteroaryl,  
6 arylalkyl, and (heteroaryl)alkyl; and

7 B<sup>1</sup> and B<sup>2</sup> are each independently a member selected from the group  
8 consisting of aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, alkyl, and cycloalkyl.

1 **5.** The compound of claim 1, wherein

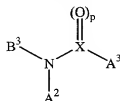
2 A<sup>1</sup> is a heteroarylene group containing two fused rings;

3 L<sup>1</sup> and L<sup>2</sup> are each independently a member selected from the group  
4 consisting of -O-, -NH-, and -N(R<sup>1</sup>)-;

5 R<sup>1</sup> is a member selected from the group consisting of alkyl and  
6 heteroalkyl; and

7 B<sup>1</sup> and B<sup>2</sup> are each independently a member selected from the group  
8 consisting of aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, alkyl, and cycloalkyl.

6. A compound of the formula



II

wherein:

A<sup>2</sup> and A<sup>3</sup> are each independently a member selected from the group consisting of alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, aryl(heteroalkyl), and (heteroaryl)heteroalkyl;

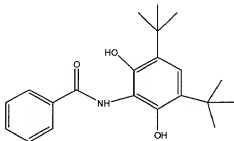
B<sup>3</sup> is a member selected from the group consisting of hydrogen, -alkylene-C(O)R<sup>3</sup>, -C(O)R<sup>3</sup>, alkylene-C(O)N(R<sup>3</sup>R<sup>4</sup>), -C(O)N(R<sup>3</sup>R<sup>4</sup>), alkylene-S(O)<sub>n</sub>N(R<sup>3</sup>R<sup>4</sup>), -S(O)<sub>n</sub>N(R<sup>3</sup>R<sup>4</sup>), alkylene-N(R<sup>3</sup>R<sup>4</sup>), alkylene-OR<sup>3</sup>, and -C(O)OR<sup>3</sup>;

R<sup>3</sup> and R<sup>4</sup> are each independently a member selected from the group consisting of hydrogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, aryl(heteroalkyl), and (heteroaryl)heteroalkyl;

X is a member selected from the group consisting of C, S, and N; and

the subscripts n and p are each independently an integer from 0-2,

provided that the following compound is excluded:



7. The compound of claim 6, wherein

A<sup>2</sup> and A<sup>3</sup> are each independently a member selected from the group consisting of aryl and heteroaryl;

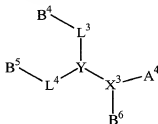
B<sup>3</sup> is a member selected from the group consisting of alkylene-C(O)N(R<sup>3</sup>R<sup>4</sup>), and alkylene-S(O)<sub>n</sub>N(R<sup>3</sup>R<sup>4</sup>);

wherein R<sup>3</sup> is arylalkyl or (heteroaryl)alkyl;

R<sup>4</sup> is hydrogen;  
X is S; and  
n is 2.

8. The compound of claim 6, wherein  
A<sup>2</sup> is an aryl group substituted *ortho* to the nitrogen with a member  
selected from the group consisting of -OH, -NH<sub>2</sub>, -NHC(O)-alkyl, -NHSO<sub>2</sub>-alkyl;  
A<sup>3</sup> is a member selected from the group consisting of aryl and heteroaryl;  
B<sup>3</sup> is hydrogen;  
X is C; and  
p is 1.

9. A compound of the formula:



III

wherein:

A<sup>4</sup> is a member selected from the group consisting of hydrogen, -C(O)R<sup>5</sup>, -C(O)N(R<sup>5</sup>R<sup>6</sup>), -S(O)<sub>n</sub>N(R<sup>5</sup>R<sup>6</sup>), -alkylene-N(R<sup>5</sup>R<sup>6</sup>), -alkylene-OR<sup>5</sup> and -C(O)OR<sup>5</sup>;

L<sup>3</sup> and L<sup>4</sup> are each independently a member selected from the group consisting of a single bond, -C(O)-, -S(O)<sub>p</sub>-, and alkylene, wherein the subscript p is an integer from 0-2;

B<sup>4</sup>, B<sup>5</sup> and B<sup>6</sup> are each independently a member selected from the group consisting of hydrogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, fused-benzoheterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, aryl(heteroalkyl), (heteroaryl)alkyl, and (heteroaryl)heteroalkyl;

alternatively, B<sup>4</sup> and B<sup>5</sup> join to form a divalent arylene, heteroarylene, alkylene, or cycloalkylene linkage between L<sup>3</sup> and L<sup>4</sup>, and B<sup>6</sup> is a member selected from the group consisting of hydrogen, alkyl, heteroalkyl, heterocycloalkyl, arylalkyl, or (heteroaryl)alkyl.

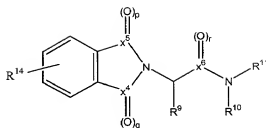
X<sup>3</sup> and Y are each independently a trivalent nitrogen atom or a trivalent or tetravalent carbon atom; and

R<sup>5</sup> and R<sup>6</sup> are each independently a member selected from the group consisting of hydrogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, aryl(heteroalkyl), (heteroaryl)alkyl, and (heteroaryl)heteroalkyl.

**10.** The compound of claim 9, wherein  
A<sup>4</sup> is a member selected from the group consisting of hydrogen, -C(O)N(R<sup>5</sup>R<sup>6</sup>) and -S(O)<sub>2</sub>N(R<sup>5</sup>R<sup>6</sup>);  
R<sup>5</sup> and R<sup>6</sup> are each independently a member selected from the group consisting of alkyl, cycloalkyl, and heterocycloalkyl;  
L<sup>3</sup> and L<sup>4</sup> are each independently a member selected from the group consisting of -C(O)-, -S(O)<sub>2</sub>-, and lower alkylene;  
B<sup>4</sup> and B<sup>5</sup> join to form an arylene or heteroarylene linkage between L<sup>3</sup> and L<sup>4</sup>;  
X is tetravalent carbon in the *R* configuration;  
Y is trivalent nitrogen; and  
B<sup>6</sup> is a member selected from the group consisting of hydrogen, alkyl, heteroalkyl, heterocycloalkyl, arylalkyl, or (heteroaryl)alkyl.

**11.** The compound of claim 9, wherein  
A<sup>4</sup> is a member selected from the group consisting of hydrogen, -C(O)N(R<sup>5</sup>R<sup>6</sup>) and -S(O)<sub>2</sub>N(R<sup>5</sup>R<sup>6</sup>);  
R<sup>5</sup> and R<sup>6</sup> are each independently a member selected from the group consisting of alkyl, cycloalkyl, and heterocycloalkyl;  
L<sup>3</sup> and L<sup>4</sup> are each independently a member selected from the group consisting of -C(O)-, -S(O)<sup>2</sup>-, and lower alkylene;  
B<sup>4</sup> and B<sup>5</sup> are each independently a member selected from the group consisting of hydrogen, alkyl, arylalkyl, aryl, and heteroaryl;  
X is tetravalent carbon in the *R* configuration;  
Y is trivalent nitrogen; and  
B<sup>6</sup> is a member selected from the group consisting of hydrogen, alkyl, heteroalkyl, heterocycloalkyl, arylalkyl, and (heteroaryl)alkyl.

**12.** The compound of claim 9, said compound having the formula



**IIIa**

wherein:

$X^4$ ,  $X^5$  and  $X^6$  are each independently C or S;

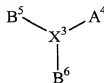
$R^{10}$  and  $R^{11}$  are each independently alkyl, cycloalkyl, or heterocycloalkyl;

$R^9$  is an optionally substituted aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, heterocycloalkyl;

$R^{14}$  is selected from hydrogen, halogen, alkyl, alkoxy, alkylamino, alkylthio, acyl, cycloalkyl and aryl; and

the subscripts p, q, and r are each independently integers from 0-2.

13. A compound of the formula:



**IIIb**

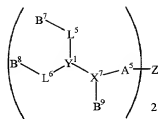
wherein:

$A^4$  is a member selected from the group consisting of hydrogen,  $-C(O)R^5$ ,  $-C(O)N(R^5R^6)$ ,  $-S(O)_n(R^5R^6)$ ,  $-alkylene-N(R^5R^6)$ ,  $-alkylene-OR^5$  and  $-C(O)OR^5$ ;

$B^5$  and  $B^6$  are members independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, fused-benzoheterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, aryl(heteroalkyl), (heteroaryl)alkyl and (heteroaryl)heteroalkyl; and

$X^3$  is a trivalent nitrogen atom or a trivalent or tetravalent carbon atom.

14. A compound of the formula:



IV

wherein:

A<sup>5</sup> is a member selected from the group consisting of -C(O)-, -alkylene-, -S(O)<sub>n</sub>-, -C(O)N(R<sup>12</sup>)-, -S(O)<sub>2</sub>N(R<sup>12</sup>)-, -alkylene-N(R<sup>12</sup>)-, -alkylene-O-, and -C(O)O-;

L<sup>5</sup> and L<sup>6</sup> are each independently a member selected from the group consisting of -C(O)-, -S(O)<sub>n</sub>-, and alkylene, wherein the subscript n is an integer from 0-2;

B<sup>7</sup>, B<sup>8</sup>, and B<sup>9</sup> are each independently a member selected from the group consisting of alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, benzoheterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, aryl(heteroalkyl), (heteroaryl)alkyl, and (heteroaryl)heteroalkyl;

alternatively, B<sup>7</sup> and B<sup>8</sup> join to form a divalent arylene, heteroarylene, alkylene, or cycloalkylene linkage between L<sup>5</sup> and L<sup>6</sup>;

Z is a member selected from the group consisting of alkylene, heteroalkylene, cycloalkylene, and heterocycloalkylene;

X<sup>7</sup> and Y<sup>1</sup> are each independently a trivalent nitrogen atom or a trivalent or tetravalent carbon atom; and

R<sup>12</sup> is a member selected from the group consisting of hydrogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, aryl(heteroalkyl), (heteroaryl)alkyl, and (heteroaryl)heteroalkyl.

15. The compound of claim 14, wherein

A<sup>5</sup> is a member selected from the group consisting of -C(O)-, -C(O)N(R<sup>12</sup>)- and -S(O)<sub>2</sub>N(R<sup>12</sup>)-;

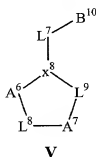
R<sup>12</sup> is a member selected from the group consisting of alkyl, cycloalkyl, and heterocycloalkyl;

B<sup>7</sup> and B<sup>8</sup> are joined in an arylene or heteroarylene linkage between L<sup>5</sup> and L<sup>6</sup>;

B<sup>9</sup> is a member selected from the group consisting of alkyl, heteroalkyl, heterocycloalkyl, arylalkyl, and (heteroaryl)alkyl;

Z is alkylene, heteroalkylene, or heterocycloalkylene;  
 $L^5$  and  $L^6$  are each independently a member selected from the group  
 consisting of  $-C(O)-$ ,  $-S(O)_2-$ , or lower alkylene;  
 $X^7$  is tetravalent carbon; and  
 $Y^1$  is trivalent nitrogen.

**16.** A compound of the formula:



wherein:

$A^6$  and  $A^7$  are each independently a member selected from the group  
 consisting of arylene, heteroarylene, cycloalkylene, and heterocycloalkylene;

$B^{10}$  is a member selected from the group consisting of aryl, heteroaryl,  
 arylalkyl, (heteroaryl)alkyl, alkyl, cycloalkyl, cycloalkenyl, heteroalkyl, heterocycloalkyl,  
 and heterocycloalkenyl;

$L^7$ ,  $L^8$ , and  $L^9$  are each independently a member selected from the group  
 consisting of  $-O-$ ,  $-S-$ ,  $-N(R^{13})$ ,  $-C(O)-$ ,  $-S(O)-$ ,  $-S(O)_2-$ , alkylene,  $-O$ -alkylene,  $-S$ -  
 alkylene,  $-N(R^{13})$ -alkylene,  $-C(O)$ -alkylene,  $-C(O)N(R^{13})$ -alkylene,  $-C(O)$ - $O$ -alkylene, a  
 single bond, and a double bond;

$X^8$  is a member selected from the group consisting of N, and  $CR^{13}$ ; and

$R^{13}$  is a member selected from the group consisting of hydrogen, alkyl,  
 heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl,  
 heteroaryl, arylalkyl, and (heteroaryl)alkyl.

**17.** The compound of claim **16**, wherein

$A^6$  and  $A^7$  are each independently a member selected from the group  
 consisting of aryl, heteroaryl, cycloalkyl, and heterocycloalkyl;

$B^{10}$  is a member selected from the group consisting of aryl, heteroaryl,  
 arylalkyl, and (heteroaryl)alkyl;

$L^7$  and  $L^8$  are each independently a member selected from the group  
 consisting of  $-C(O)-$ ,  $-S(O)-$ , and  $-S(O)_2-$ ;



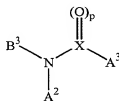
L<sup>9</sup> is a member selected from the group consisting of -C(O)-, alkylene, and a single bond; and  
X<sup>5</sup> is N.

**18.** A pharmaceutical composition, said pharmaceutical composition comprising:

- a) a compound of claim 1; and
- b) a pharmaceutically acceptable carrier or excipient.

**19.** A pharmaceutical composition, said pharmaceutical composition comprising:

- a) a compound of the formula



**II**

wherein:

A<sup>2</sup> and A<sup>3</sup> are each independently a member selected from the group consisting of alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, aryl(heteroalkyl), and (heteroaryl)heteroalkyl;

B<sup>3</sup> is a member selected from the group consisting of hydrogen, -alkylene-C(O)R<sup>3</sup>, -C(O)R<sup>3</sup>, alkylene-C(O)N(R<sup>3</sup>R<sup>4</sup>), -C(O)N(R<sup>3</sup>R<sup>4</sup>), alkylene-S(O)<sub>n</sub>N(R<sup>3</sup>R<sup>4</sup>), -S(O)<sub>n</sub>N(R<sup>3</sup>R<sup>4</sup>), alkylene-N(R<sup>3</sup>R<sup>4</sup>), alkylene-OR<sup>3</sup>, and -C(O)OR<sup>3</sup>;

R<sup>3</sup> and R<sup>4</sup> are each independently a member selected from the group consisting of hydrogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, aryl(heteroalkyl), and (heteroaryl)heteroalkyl;

X is a member selected from the group consisting of C, S, and N; and the subscripts n and p are each independently an integer from 0-2; and  
b) a pharmaceutically acceptable carrier or excipient.

1                    20.    A pharmaceutical composition, said pharmaceutical composition  
2 comprising:

- 3                    a) a compound of claim 9; and  
4                    b) a pharmaceutically acceptable carrier or excipient.

1                    21.    A pharmaceutical composition, said pharmaceutical composition  
2 comprising:

- 3                    a) a compound of claim 13; and  
4                    b) a pharmaceutically acceptable carrier or excipient.

1                    22.    A pharmaceutical composition, said pharmaceutical composition  
2 comprising:

- 3                    a) a compound of claim 14; and  
4                    b) a pharmaceutically acceptable carrier or excipient.

1                    23.    A pharmaceutical composition, said pharmaceutical composition  
2 comprising:

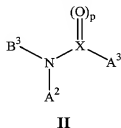
- 3                    a) a compound of claim 16; and  
4                    b) a pharmaceutically acceptable carrier or excipient.

1                    24.    A method for treating a FXR-mediated disease in a mammal, said  
2 method comprising:

3                    administering a compound of claim 1, thereby treating a FXR-mediated  
4 disease in a mammal.

1                    25.    A method for treating a FXR-mediated disease in a mammal, said  
2 method comprising:

3                    administering a compound of the formula



6                    wherein:

A<sup>2</sup> and A<sup>3</sup> are each independently a member selected from the group consisting of alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, aryl(heteroalkyl), and (heteroaryl)heteroalkyl;

B<sup>3</sup> is a member selected from the group consisting of hydrogen, -alkylene-C(O)R<sup>3</sup>, -C(O)R<sup>3</sup>, alkylene-C(O)N(R<sup>3</sup>R<sup>4</sup>), -C(O)N(R<sup>3</sup>R<sup>4</sup>), alkylene-S(O)<sub>n</sub>N(R<sup>3</sup>R<sup>4</sup>), -S(O)<sub>n</sub>N(R<sup>3</sup>R<sup>4</sup>), alkylene-N(R<sup>3</sup>R<sup>4</sup>), alkylene-OR<sup>3</sup>, and -C(O)OR<sup>3</sup>;

R<sup>3</sup> and R<sup>4</sup> are each independently a member selected from the group consisting of hydrogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, aryl(heteroalkyl), and (heteroaryl)heteroalkyl;

X is a member selected from the group consisting of C, S, and N; and the subscripts n and p are each independently an integer from 0-2; thereby treating a FXR-mediated disease in a mammal.

**26.** A method for treating a FXR-mediated disease in a mammal, said method comprising:  
administering a compound of claim 9, thereby treating a FXR-mediated disease in a mammal.

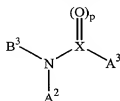
**27.** A method for treating a FXR-mediated disease in a mammal, said method comprising:  
administering a compound of claim 13, thereby treating a FXR-mediated disease in a mammal.

**28.** A method for treating a FXR-mediated disease in a mammal, said method comprising:  
administering a compound of claim 14, thereby treating a FXR-mediated disease in a mammal.

**29.** A method for treating a FXR-mediated disease in a mammal, said method comprising:  
administering a compound of claim 16, thereby treating a FXR-mediated disease in a mammal.

30. A method for modulating *cyp7a* expression levels in a mammal,  
said method comprising:  
administering a compound of claim 1, thereby modulating *cyp7a*  
expression levels in a mammal.

31. A method for modulating *cyp7a* expression levels in a mammal,  
said method comprising:  
administering a compound of the formula



wherein:  
A<sup>2</sup> and A<sup>3</sup> are each independently a member selected from the group  
consisting of alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl,  
heterocycloalkenyl, aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, aryl(heteroalkyl), and  
(heteroaryl)heteroalkyl;  
B<sup>3</sup> is a member selected from the group consisting of hydrogen, -alkylene-  
C(O)R<sup>3</sup>, -C(O)R<sup>3</sup>, alkylene-C(O)N(R<sup>3</sup>R<sup>4</sup>), -C(O)N(R<sup>3</sup>R<sup>4</sup>), alkylene-S(O)<sub>n</sub>N(R<sup>3</sup>R<sup>4</sup>), -  
S(O)<sub>n</sub>N(R<sup>3</sup>R<sup>4</sup>), alkylene-N(R<sup>3</sup>R<sup>4</sup>), alkylene-OR<sup>3</sup>, and -C(O)OR<sup>3</sup>;  
R<sup>3</sup> and R<sup>4</sup> are each independently a member selected from the group  
consisting of hydrogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, cycloalkenyl,  
heterocycloalkenyl, aryl, heteroaryl, arylalkyl, (heteroaryl)alkyl, aryl(heteroalkyl), and  
(heteroaryl)heteroalkyl;  
X is a member selected from the group consisting of C, S, and N; and  
the subscripts n and p are each independently an integer from 0-2;  
thereby modulating *cyp7a* expression levels in a mammal.

32. A method for modulating *cyp7a* expression levels in a mammal,  
said method comprising:  
administering a compound of claim 9, thereby modulating *cyp7a*  
expression levels in a mammal.

1                   **33.**     A method for modulating *cyp7a* expression levels in a mammal,  
2 said method comprising:  
3                   administering a compound of claim **13**, thereby modulating *cyp7a*  
4 expression levels in a mammal.

1                   **34.**     A method for modulating *cyp7a* expression levels in a mammal,  
2 said method comprising:  
3                   administering a compound of claim **14**, thereby modulating *cyp7a*  
4 expression levels in a mammal.

1                   **35.**     A method for modulating *cyp7a* expression levels in a mammal,  
2 said method comprising:  
3                   administering a compound of claim **16**, thereby modulating *cyp7a*  
4 expression levels in a mammal.